U.S. APPLICATION 09/783,242 AMENDMENT A

Attorney Docket No.: 3654.006

IN THE SPECIFICATION

On page 8, the paragraph starting on line 7, please replace the paragraph to read as follows:

The present invention departs from Danly, Sr. in that the material sintered onto the steel body to form the anti-friction layer is not pure bronze, but instead includes 20 wt% or less, preferably 5 2-15% of anti-friction particles having a high percentage of molybdenum. instead Instead of sintering a powder comprised entirely of bronze as taught by Danly, Sr., 20 wt% or less, and preferably 2-15% of the bronze is replaced by antifriction particles having a high percentage of molybdenum. anti-friction particles have the same composition as materials known in the art as "hardfacing compositions," and are generally either metal carbide based compositions or intermetallic hardfacing alloys. These materials are well known to those skilled in the art under various proprietary names, such as STELLITE alloys, HAYNES alloys, DELCROME alloys and TRIBALOY alloys. STELLITE alloys are examples of carbide based hardfacing alloys, whereas TRIBALOY alloys are examples of intermetallic hardfacing alloys high in molybdenum and cobalt. The TRIBALOY product family is particularly preferred for purposes of the present invention, and most preferred among these are alloys T400, T700 and T800, which combine the lubricity of molybdenum with the wear resistance and corrosion resistance of elements such as cobalt and nickel. The resulting particles tend to be brittle, but this is not a problem since these particles are used as a small constituent in bronze powder.

On page 11, the paragraph starting on line 30, please replace

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the paragraph to read as follows:

The inventors then ran a series of compacting and sintering tests on 4 lubricant candidates: MOS_2 MOS_2 , CaF_2 CaF_2 , graphite, and TRIBALOY T400. Each of these particles was mixed with bronze powder in 3 different concentrations: at the percolation limit, 2/3 the percolation limit, and 1/3 the percolation limit. (The compacting and sintering process is described in greater detail below in the section relating to the figures.)